

Cyclic Voltametry Studies Of $\text{LiMn}_x\text{Cu}_y\text{O}_4$ As Possible Candidates For Cathodes in Lithium Ion Batteries

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ABSTRACT

The purpose of this study is to see if incorporating another element into the LiMn_2O_4 matrix would result in an improvement of the characteristics of these materials as compared to that of LiMn_2O_4 on its own. The synthesis of $\text{LiMn}_x\text{Cu}_y\text{O}_4$ is done using the soft chemistry approach. The values of x is between 1.8-1.0 and that of y is between 1.0-0.2. After the precursors were obtained, the materials were heated at a temperature of 600 °C for six hours. The characteristics of these materials were studied using X-Ray Diffractions, EDAX and FTIR. Cyclic voltametry of the materials were done and the results are discussed in this paper.

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